INDEX

Aboriginal Stone Structure in Calhoun County, More 195
Academic Achievement, IQ, Level of Occupational Plans, and Self-Concepts for Anglo and Navaho High School Students 194
Acrosomal Proteinase Inhibitors Associated with Epididymal Murine Spermatozoa 115
Adams, Franklyn W. 131, 142
Adams, J. R. 134
Adams, Murray C. 167
Adaptive Arrays: Improved Antenna Performance Through Signal Processing 190
Adrenal Auto-Transplantation on Granulosa Neoplasms in the Rat, The Effects of 122, 234
Adrenocorticotrophic Hormone and Theophylline Upon Adrenal Accumulation of 3'5' Cyclic Adrenosine Monophosphate, Effects of Aging 131
Aerospace Science Education Resource Centers, Operations and Services of the National Network of 160
Aging, Thyroid Level, Adrenocorticotrophic Hormone and 3'5' Cyclic Adenosine Monophosphate Upon *In Vitro* Adrenocortical Activity, Effect of 114
Alabama Tardigrades, A Preliminary Survey of 121
Alexander Hamilton: A Survey, Interpretations of 166
Allen, B. E. 243
American Indian Crania: 1800-1866, Classification of 198
American Revolution: Counter-Attack at the Village, January 7, 1781, Alabama's Bloodiest Day of the 163
Antigen - Antibody Complex Formation, Some Characteristics of 181
Antigen - Antibody Interactions, A New Theoretical Approach to 182
Antithyroid Drug Propyl-2-Thiouracil by Human Polymorphonuclear Leukocytes, Concentration and Metabolism of the 185
Appalachia, A Working Paper: Culture and Poverty in 200
Archaeological Investigation in Alabama, The Direction of 199
Aspergillus ochraceus Wilhelm, Studies on the Metabolites of 141
Aspirin on Pulmonary Parameters During Hyporolemic Shock, Effects of 184
Azomethane in the Gas Phase, Nonconcerted Thermodecomposition of 139
Bagwell, James E. 155
Ball, Mary 122
Basauxic Conidiogenous Cells in the Fungi Imperfecti 138

Basic Vocabulary Lists: Some Examples From Northwest Borneo, Problems in the Field Collection of 199
Baugh, Charles M. 183
Bioelimination of ^{59}Fe Versus Egg Production in *Drosophila melanogaster* When Larvae Are Reared in a Variety of Environmental Situations 122
Biology of an Unusual Colonial Ciliate of the Genus *Ophrydium* (Ophrydiidae: Protozoa), Aspects of the 119
Black Labor in Alabama, 1860-1865, A State of Flux 165
Bloss, Pamela 150
Bodden, W. Rupert, III 152
Boland, J. S., III 16
Bond, B. J. 158
Botts, Daniel A. 119
Bovine Fetal and Adult Plasma Membranes, Solubilized Enzymes and Protein Patterns of 178
Bovine Plasma Membrane Soluble Components Isolated by a Variety of Solubilization Techniques, Electrofocusing Analysis of 179
Braverman, Eleanor B. 183
Brewer, Michael E. 129
Brockman, G. F. 144
Browder, M. L. 124
Brown, L. G. 137
Brugh, Thomas H., Jr. 123
Buckner, E. B. 187
Burgess, Jerry G. 155
Burks, D. G. 190, 191, 192
Butyrate and/or Lipoate on the In Vitro Frog Gastric Mucosa, The Role of 188
Caldwell, R. S. 124
Campbell, P. S. 125, 130
Cantavespre, Sam 129, 137
Carmack, C. L. 127
Carmichael, Emmett B. 172
Carmichael, John L., Jr. 166
Caton, Robert E. 177
Cercosporae on Leguminsae, Some 137
Chase, David W. 196
Chennareddy, Venkareddy 1
Chick Fibroblasts and *Ankistrodesmus*, Cresol Induced Growth Inhibition in Cultures of 243
China, Ideology and Archeology in 198
Chiu, Chao-Hon 139
Chronister, Robert B. 174
Church, Avery G. 194
Church Size and Membership Growth 163
Clifton, Robert C. 146
Cline, George B. 178, 179, 181, 182

Cochis, Thomas 119, 120, 133
Cochran, John E., Jr. 188
Colburn, B. K. 16
Community Study: A Case Study of Merchant
Castes in Two Indian Cities, An Approach to 162
Controversial Resource Issues, The
Professionals' Role in 158
Cook, Robert B. 146
Cooper, E. A. 140
Cope, Donald Ansley 154
Corgan, James X. 59
Cottle Creek, A Conecuh River Tributary,
As an Example of Nineteenth Century Gulf
Coast Log Transportation 154
Cox, William A. 136
Craig, Charles 186
Crawfish Type-Localities Within Alabama 54
Cuban Sugar is a Product of Nineteenth
Century Capitalism 167
Culberson, Donald E. 125
Curl, E. A. 127
Curott, David R. 161
Damrich, Michael E. 184
Davis, N. D. 117, 118, 135, 136
Davis, William B. 186
DeFrance, Jon F. 174
Defant, Marc J. 149
Dennis, Michael V. 116
Denton, T. E. 243
DeVall, W. B. 158
Diener, U. L. 117, 118, 135, 136
Differential Diagnosis and Paleopathology
with an Example from Site 1JA376 200
Dipetalonema reconditum Filariasis in Dogs;
Significance of 173
Dixon, Carl F. 115, 116
Dooley, William 122, 234
Dow, James J. 131
Drechslera and *Curvularia* Found on Corn
in Alabama, Species of 126
Drummond, Segal E., Jr. 147, 151
Dual-Spin Spacecraft Due to Mass Asymmetries,
Nonlinear Resonance in 188
Dye, Milton 144
Eaves, Richard Glen 162, 215
Economic Uranium Deposits in the Eastern
Alabama Coastal Plain, Criteria for the
Discovery of 146
Edwards, J. M. 131
Edwards, Jesse J. 178, 179, 182
Egg Production in *Drosophila melanogaster*
(Meigen) Based on Bioelimination of
^{59}Fe, Prediction of 123

Eigenvectors for the Wind Profile, Analysis of 202
Electrode Configurations for Earth Resistivity
Survey of Subsurface Geology 142
Electromagnetic Mechanisms in Bird Orientation
and Homing 191
Elementary Methods Course Based on New Programs,
Hands-On Activities, and Microteaching, An 160
Elkins, Charles B. 128
Emerson, Geraldine M. 169, 171
Ensor, H. Blaine 197
Espy, Patrick N. 189
Essenwanger, Oskar M. 202
Export Tonnages Through the Port of Mobile,
Alabama 1980-2035, Projections of 1
Farnell, Daniel R. 173
Farnell, Kenneth E. 176
Female Reproductive Cycle of the Loggerhead
Musk Turtle, *Sternotherus minor minor*,
in a North Florida Spring, Observations of the 136
Fenn, Hollis C. 160, 161
Field Relations in the Hillabee Chlorite
Schist of the Millerville Region,
Clay County, Alabama 150
Field Relationships and Structural Framework
of the Almond Trondhjemite, Randolph
County, Alabama 148
Fitzpatrick, J. F., Jr. 54
Floc Forming Bacteria From Municipal and
Industrial Waste Treatment Processes,
Isolation and Characterization of 124
Flodin, Nestor W. 179, 180
Flower and Pid Abscission on the Fertility
of Soybeans (*Glycine max* (L.) Merr.),
The Effect of 133
Flowers of Cherokee County, Alabama, Spring,
Summer and Fall 133
Folic Acid, Metabolism of Poly-γ-Glutamates of 183
Folkerts, George W. 119, 121, 135
Fornaro, Robert J. 198
Fornix Longus: A Morphologic Analysis, The
Regions of the 174
Fortson, Andrew W. 145
Fossil Seeds from the Upper Parkwood Formation 152
Fountain, Michael W. 132, 234
Frederick, Prince of Wales: Causes and
Methods of Opposition 162, 215
French, Fran 167
Fungal Lipids: Rust Aeciospores 127
Fungi of Alabama. III. Dematiaceous Hyphomycetes 38
Fungi of Alabama. IV. Two Species of *Psilocybe* 62
Gainesville Resevoir, The Archaeology of the 196
Galle, Gerry 170

Gas Vacuolation in *Microcystis aeruginosa*
Growing in Continuous Culture, The Degree of 129
Gauthier, Joseph 120, 124, 129, 137
Gautney, Jessica 122
Gay, Marjorie W. 199
Gist, Ricky 141
Globin mRNA from Rabbit Marrow Chromatin,
In Vitro Transcription of 170
Glover, Mattie M. 67, 118
Goins, Audrey, E. 135
Graf, E. R. 190, 191, 192
Grist Mills in Alabama: A Geographical
and Technological Appraisal 153
Gudauskas, Robert T. 130
Hagler, W. H. 136
Hallett, Patrick D. 156
Hamer, J. C. 140
Handicapped in Science, A Report on the AAAS
Project on the 161
Hardware-in-the-Loop Simulation Methods,
An Application of 191
Harper, James D. 119
Hartselle Sandstone, Sediment Statistics of the 146
Hartwig, Chester W. 167
Hatchery Stocks of *Ictalurus punctatus* (Channel
Catfish), An Electrophoretic Analysis of Five 138
Hayatdavoudi, A. 193
Hayes, Danny 155
Hazelgrove, Leven S. 140
Heavy Mineral Resources, Offshore Alabama and
Mississippi, Possible 151
Heeter, Barbara J. 170
Henderson, H. A. 158, 163
Hester, P. J. 193
Hippocampo-Anterior Thalamic Connection:
A Horseradish Peroxidase Study, The 176
Historic Archaeological Sites, Buttons as an
Aid for Dating 197
Hoffman, F. M. 188
Holman, Norman W. 184
Holmes, Jack D. L. 79, 163
Holl, H. B. 201
Hubbuch, Martha 141
Huett, Thomas B. 152
Hughes, Travis H. 147, 150
Imidazole on the In Vitro Frog Gastric
Mucosa, The Action of 187
Interstate-65 Archaeological Salvage Investigations
in Jefferson County, Alabama 197
Iron Ore, Agglomeration of 193
Iron Sulfide Concretions of the Upper
Cretaceous in Alabama 152
Instructions to Authors 60

Jeane, Donald Gregory 153
Jenkins, Dan L. 197
Jenkins, Ned J. 196
Jones, Daniel D. 129
Jones, D. M. 190
Karr, Guy W., Jr. 126, 130, 247
Kelly, P. J. 140
Kelley, W. D. 127
Klesius, Phillip H. 116
Koch, Walter F. 157
Kouskolekas, C. A. 139
Kowalski, Gregory S. 167
Lam, David 185
Lamiaceae of Northeast Alabama 119
Landers, Kenneth E. 119, 120, 133
Landers, Timothy 133
Landscaping with Flowering Trees and Shrubs 120
Laser Guided Missiles, Simulation Models for 189
Laycock, David 170
Lelong, Michel G. 126
Life at an Advanced Age, Biologic Considerations of 169
Limbic-Isocortical Interface, The 175
Lindsay, Raymond H. 185
Linzey, Alicia V. 109
Linzey, Donald W. 109
Liu, Bang Maw 181, 182
Long, Lamar 150
Lucy, Ben 129
Lux, Guillermo 167
Macromolecular Molecules and Immunoglobulins,
Physicochemistry of 140
Mader, Paul Douglas 200
Maehl, William H. 87, 168
Mammary Tumors in *Rattus norvegicus*, Saf/Sd
Strain, Spontaneous Development of 132
Marco, Luis A. 177
Marine *VS* Nonmarine Environment for the Coker
Formation (Cretaceous), The Investigation of a 143
Marion, Ken R. 120, 123, 136
Marks, Henry S. 167
Marks, Marsha Kass 166
Marple, D. N. 116
Mason, William H. 121, 122, 123
Maxwell, Allen R. 199
McCain, Hulon W. 174
Mercer, L. Preston, ... 179, 180
Microbial Flora of the Intestinal Tract
of the Lizard, *Sceloporus undulatus* 120
Middle Ordovician Bioherms in
Birmingham, Alabama, Area 144
Minutes--annual business meeting 204
Mizell, Terrence A. 200

Mobile *Gazette* and the American Occupation of Mobile 1813: A Lesson in Historical Detective Work, The 79
Mohan, Raj P. 162
Moore, Jack H. 141
Morgan, Paul H. 172, 179, 180
Morgan-Jones, Gareth 38, 62, 126, 135, 136, 137, 138, 247
Mouse Liver Macrophages and Lipopolysaccharide Neutralization 186
Multifunctional Radar, Computer Simulation of a 192
Multiple Analysis for Mycotoxins in Natural Products. I. Aflatoxin, Sterigmatocystin, Patulin, and Penicillic Acid 117
Multiple Analysis for Mycotoxins in Natural Products. II. Ochratoxin, Rubratoxin, Zearalenone, and Trichothecenes 118
Mundy, R. L. 184
Murray, Thomas P. 141
Mycobacterium phlei Catalase Activity: Possible Mechanism of Acquired Resistance, Isoniazid Inhibition of 186
Mycoflora of Activated Sewage Sludge 136
Myers, John B. 165
National Labor Relations Board and Its Early History, 1935-1938, The Establishment of the 166
Nelson, James R. 153
Newton, John P. 49
Nicholson, James 120
Ninhydrin Analogs for Use in the Identification of Amino Acids, The Synthesis of 140
Noise Stress and Adrenocortical Function in Feral *Sigmodon hispidus* 124
Numerical Model for Computing Liquid Water Content in Fog 202
Nutrient Responses, A Mathematical Model for the Description of 180
Opportunity Time Costs, Marginal Analysis and the Estimation of 49
Orbits, the Calculator, and the Non-Calculus Physics Laboratory 161
Osterlund, Merilyn 153
Parham, Groesbeck 115
Pastrick, Harold L. 189
Peerce, Brian E. 179
Perkins, Stanley E., Jr. 109
Peromyscus leucopus Species Group in Alabama 109
Peterson, Curt M. 128, 133
Phagocytosis of *Eimeria stiedai* Sporozoites by Rabbit Peritoneal Macrophages 116
Phenol Degrading Bacteria from an Industrial Waste Treatment Process, Isolation and Characterization of 137

Phillips, David M. 186
Plant Hormones on the Growth and Pigmentation of *Epicoccum nigrum and helminthosporium tetramera*, Effects of 103
Plant, Nancy C. 143
Plant Parasitic and Free-living Nematodes, The Effects of 1, 2, 4, 5-Tetrachlorobenzene on 134
Plotka, P. S. 138
Poirier, Gary R. 115
Polarization, Laser Light Diffraction from Gratings and the Effect of 201
Polyketide Metabolites, Approaches to the Biogenetic Type Synthesis of 141
Polyp of the Freshwater Jellyfish, *Craspedacusta Sowerbyi* (Cnidaria: Hydrozoa), Encystment and Excystment of the 125
Pottsville Correlation in Alabama, A Solution for 148
Price, J. W. 192
Price, Rex C. 142
Pritchett, J. F. 114, 116, 117, 124, 131, 132
Prometaphase in Dividing Cells, Some Structural and Functional Features of 125
Proteins, New Methods for Comparing Nutritive Value of Proteins 179
Pyrazole on Blood Levels of Ethylene Glycol in Mice, Effect of 184
Q Elements of a $A^TQ + QA = C$ for a Class of Model-Reference Adaptive Systems, Determination of 16
Rat Liver Mitochondria, Heat Lability of Two Enzymes of 171
Red Gap Structure Complex, Birmingham, Alabama, The 144
Red Gap Structural Complex, Birmingham, Alabama, Small Scale Structure Within 145
Rehm, W. S. 187
Reid, W. J. 195
Reproduction Cycle of the Male Fence Lizard, *Sceloporus undulatus*, Environmental Control of the 123
Reptilian Vertebra from the Nanafalia Formation, Coffee County, Alabama 142
Rhizosphere, Biology of the 127
Riggsby, Dutchie S. 160
Riggsby, Ernest D. 160
Riley, Clyde 139
Roberts, Pamela A. 128, 133
Robeson, James 129
Robinson, J. M. 243
Rodent Neostriatum, The Dendritic Organization of the 176
Rodriguez-Kabana, R. 134

Root Development in Bahia Grass *(Paspalum Notatum Var. Saurae)*, Some Morphological and Anatomical Features of 128
Rosemond-Hornbeak, Hortencia 170
Russell, Willa M. 189
Sanders, S. S. 187
Sapra, V. T. 67, 118
Sartin, James L. 114, 116, 117, 124, 131
Schaffer, Sheldon 1
Schwaiger, Gary 137
Scientific and Technical Journals of Antebellum Tennessee, Articles of Alabama in the 59
Sedimentation in Harris Lake, Tuscalloosa County, Alabama 150
Settlement Patterns on the Sides of the Mountains Above Paint Rock Valley 153
Shaw, Kathleen D. 200
Shepherd, D. P. 132
Shoemaker, R. L. 187, 188
Shotts, Reynold Q. 193, 194
Shugerman, R. 188
Sikes, Robert W. 176
Sinnott, John 186
Skeletal Sample from 1PE1, The Analysis of a 198
Slack, J. M. 132
Small Business Operations: A Supermarket in Southside, Alabama, Locational Analysis for 155
Small Intestine of the Domestic Rabbit Infected with *Obeliscoides cuniculi*, ^{59}Fe Absorption in the 115
Smith, E. W. 190, 192
Smith, Loretto F. 156
Solar Energy Available in Alabama 189
Solar Heating and Cooling Systems Analysis at MSFC 192
Southern Pitcher Plant Mosquito, *Wyeomyia haynei* Dodge, Observations on the Life History and Ecology of the 135
Sovereign State in Political Geography: The Need for a Reappraisal and a Proposal for Consideration 157
Spangler, S. G. 187
Steensgaard, Jens 181, 182
Steroid Pretreatment Upon Subsequent Uterotrophic Responses in Prepubertal Rats, Effect of 130
Stevens, Clauzell 130
Stewart, Dorathy Anne 202
Stillage as a Local Economic Asset in Moore County, Tennessee 153
Stow, Stephen H. 151
Strip Mine Drainage in Bluff Creek, Tuscaloosa County, Alabama 147
Sutherlin, Donald W. 191

Sutton, Karen 124
Synthetic Amide Substrate by Human Cl Esterase,
Hydrolysis of a 172
Target Echo Decorrelation in a Frequency
Scanned Radar System, Modeling of 190
Taylor, John D. 148
Tea Scale, *Fiorinia theae* Green, An Insect
Pest of Camellia, Laboratory Studies on 139
Teleost Fish, Regenerative Capabilities
of the Forebrain in the 177
Temperature on the Population of a Specific
Bacterium in the Intestinal Tract of a
Poikilotherm, *Sceloporus undulatus*, Effects of 120
Tennessee Valley Agriculture, Systems for Developing 158
Tetter, M. T. 114
Thiocyanate Degrading Bacterium from an
Industrial Waste Treatment Process,
Isolation of a 129
Thyroid Stimulating Hormone and Cyclic-amp
Upon Thyroid Activity, Interaction of Age 116
Thyroid Stimulating Hormone and Theophylline Upon
Thyroid Accumulation of 3'5'-Cyclic amp in
Aging Rats, Effect of 117
Tidal Volume in the Rat, A Method for Measurement of 174
Toxigenic Fungi from Cotton and Cottonseed 135
Trace Element Variations Within the Almond
Trondhjemite and Blakes Ferry Pluton,
Randolph and Clay Counties, Alabama,
Preliminary Geochemical Analysis of 149
Tripitz VS Bebel, The Great German Naval Law of 1900 ..... 87, 168
Tull, James F. 148
Turner, Kenneth R. 198
Underground Coal Mining, Minimization of
Environmental Effects from 193
University Professors, The Interrelationship of
Academic Discipline, Work and Leisure
Preferences Among 167
Urban Blight: Community Development in
Anniston, Alabama, Federal Efforts to Alleviate 155
Vasectomy, Short Term Gonadal Effects of 132
Viral Diseases of Corn, Seasonal Incidence of Two 130
Wagener, R. E. 135
Warren, Larry C. 139
Water Hyacinth Into Walnut Creek in Southeast
Alabama, An Infusion of 131
Water Stored in Some Abandoned Underground Mines,
Cahaba Coalfield, Alabama, Quality of 194
Watson, Don 142
Wayner, Gary A. 119, 120, 133
Weatherby, Craig 138
Weedy Plants of Mobile County, Alabama, Noteworthy 126
Weete, J. D. 103, 127
Wheat X Rye Amphiploids, Production of 67, 118

Whidden, M. P. 117, 118
Whidden, S. J. 132
Whither the New Archeology 196
Wilke, Arthur S. 162
Wilkerson, R. Douglas 184
William Beaumont: Pioneer Biochemist 172
Wilson, H. J. 125, 130
Wilson, V. G. 67, 118, 125
Wingo, W. J. 171
Wish Cells Infected with Herpes Simplex
Virus Type 2, Deoxyribonuclease Induction in 170
Word, David 121
Yankowsky, C. E. 130
Yates, Bill 120
Yonders, Patricia C. 115
Young, H. C. 158
Youth Baseball in Alabama: Some Geographical
Implications 155
Yucatan Peninsula and the Guatemalan
Highlands, House Types of the 156
Yucatan Peninsula: Prospects and Problems,
Tourism in the 156
Zonal Rotors, The Use of Acrylamide Gels to
Analyze Zone Broadening in 182

Notes